BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

BYATARAYANAPURA DIVISION

EMB

1st & Final Bill

Name of Contractor : M/s Sri.Channakeshava Enterprises (Prop:Kiran Gowda D)

Estimated Cost:25.00 Lakh

Job Code: 010-20-000073

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

BYATARAYANAPURA DIVISION

DETAILED-MEASUREMENTS

Name of Contractor : M/s Sri.Channakeshava Enterprises (Prop:Kiran Gowda D)

Estimated Cost:25.00 Lakh

Job Code: 010-20-000073

BRUHATH BANGALORE MAHANAGARAPALIKE

BYATARAYANAPURA DIVISION

1ST AND FINAL BILL

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

JOB NUMBER:010-20-000073

Estimate Cost:25.00 lakhs

Work Order No: BBMP / EE/ BTP/ W.O /97/2020-21 dt:05-09-2020

Name of Contractor :M/s Sri.Channakeshava Enterprises (Prop:Kiran Gowda D)

Item No	Description of Item	No	Length	Breadth	D1	D2	Avg Depth	Unit	Qty	Rate in Rs	Amount
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. iii) Dismantling Stone Masonry.B. Rubble stone masonry in cement mortar. MORTH Specification No. 202										
	Qty Taken from Pre measurement page Item No. 1, Page No.1							**Cum**	**4.50**	**372.05**	**1674.23**
2	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3										
	Qty Taken from Pre measurement page Item No. 2, Page No.2							**Cum**	**151.49**	**174.80**	**26480.28**
3	Removing and refixing stone slabs of drains and pointing in CM (1:3)										
	Qty Taken from Pre measurement page Item No. 3, Page No.3							**Sqm**	**264.30**	**93.71**	**24767.55**
4	Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2.										
	Qty Taken from Pre measurement page Item No. 4, Page No.4							**Cum**	**65.16**	**4553.64**	**296723.72**
5	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2.										
	Qty Taken from Pre measurement page Item No. 5, Page No.5							**Cum**	**7.86**	**4635.75**	**36437.00**
6	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm										
	For RCC Culvert										
	For Bottom raft										
	Venugopala Swamy Temple Main Road										
	Culvert	1	6.00	1.50	0.20	0.20	0.20		1.80		
	Archaka S Narasappa Layout										
	Culvert @ 1st cross	1	4.30	1.50	0.20	0.20	0.20		1.29		

Item No	Description of Item	No	Length	Breadth	D1	D2	Avg Depth	Unit	Qty	Rate in Rs	Amount
	Culvert @ 2nd cross	1	5.50	1.50	0.20	0.20	0.20		1.65		
	For RCC Wall										
	Venugopala Swamy Temple Main Road										
	Culvert	2	6.00	0.30	0.60	0.60	0.60		2.16		
	Archaka S Narasappa Layout										
	Culvert @ 1st cross	2	4.30	0.30	0.60	0.60	0.60		1.55		
	Culvert @ 2nd cross	2	5.50	0.30	0.60	0.60	0.60		1.98		
	Concrete For Vent Portion										
	Venugopala Swamy Temple Main Road										
	LHS	1	30.00	0.50	0.10	0.10	0.10		1.50		
		1	20.00	0.45	0.05	0.05	0.05		0.45		
	RHS	1	30.00	0.50	0.10	0.10	0.10		1.50		
		1	15.00	0.45	0.05	0.05	0.05		0.34		
							Present Qty	**Cum**	**14.22**	**5953.11**	**84626.44**
7	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position,lapping and / or welding wherever required, tying with binding wire andanchoring to the adjoining members wherever necessary complete asper design (laps, hooks and wastage shall not be measured and paid)cost of materials, labour, HOM of machinery complete as perspecifications.TMT Bars Fe-500										
	Qty Taken from Pre measurement page Item No.7, Page No.6							**Tonne**	**1.34**	**60899.32**	**81688.16**
8	Providing and fixing Precast cover slab Made out of CC 1:2:4 with 10cm thick and finishing cutting, including form work, curing,including cost of all materials, Labour, Hire Charges of machinery, loading,unloading,leaad and lift, transportation, etc complete.Data Rate										
	Covering Slab For Drain										
	Venugopala Swamy Temple Road										
	FromTemple										
	LHS										
		36	0.60	0.90					19.44		
		13	0.60	0.90					7.02		
		14	0.60	0.90					7.56		
		5	0.60	0.90					2.70		
		6	0.60	0.90					3.24		
	From Ramachandrapura Main Road										
	LHS	24	0.60	0.90					12.96		
	RHS	28	0.60	0.90					15.12		
	Cross Road Near RR School Main Road										
		22	0.60	0.90					11.88		
		10	0.60	0.90					5.40		
		20	0.60	0.90					10.80		
		15	0.60	0.90					8.10		
		17	0.60	0.90					9.18		
							Present Qty	**Sqm**	**113.40**	**1967.75**	**223142.85**
9	Providing and fixing Precast cover slab 250mm thick Made out of CC 1:2:4 and jelly 20mm Down Size with steel reinforcement including form work, curing,including cost of all materials, Labour, Hire Charges of machinery, loading,unloading,leaad and lift, transportation, etc										
	For RCC Culvert										
	Venugopala Swamy Temple Main Road										
	Culvert	1	6.00	1.50					9.00		
	Archaka S Narasappa Layout										
	Culvert @ 1st cross	1	4.30	1.50					6.45		

Item No	Description of Item	No	Length	Breadth	D1	D2	Avg Depth	Unit	Qty	Rate in Rs	Amount
	Culvert @ 2nd cross	1	5.50	1.50					8.25		
	Missing Slabs For Culverts										
	Ramachandrappa Layout										
	1st Cross Road	13	0.60	1.80					14.04		
	2nd Cross Road	6	0.60	1.80					6.48		
							Present Qty	**Sqm**	**44.00**	**4561.96**	**200726.24**
10	Excavation for road work in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections,and transporation with a lead of 1km and complete as per specifications.										
	Qty Taken from Pre measurement page Item No. 10, Page No.7							**Cum**	**104.81**	**47.37**	**4964.92**
11	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406										
	Qty Taken from Pre measurement page Item No.11, Page No.8							**Cum**	**40.16**	**1685.08**	**67679.81**
12	KSRRB 500-1. Cleaning the existing WBM road surface including removing of binding materials and other foreign matter with wire brushes and small picks, sweeping with brooms or soft brushes and finally dusting with old gunny bags and / or compressed air, to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501										
	Qty Taken from Pre measurement page Item No. 12, Page No.9							**Sqm**	**405.61**	**18.74**	**7601.04**
13	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502										
	Qty Taken from Pre measurement page Item No. 13, Page No.10							**Sqm**	**405.61**	**24.10**	**9775.08**
14	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen										
	Qty Taken from Pre measurement page Item No. 14, Page No.11							**Cum**	**20.28**	**5555.04**	**112657.60**
15	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501										
	For Asphalt Road										
	Venugopala Swamy Temple Road From Ramachandrapura Main Road										
		1	30.00	4.00	3.90	3.95			118.50		
		1	30.00	3.90	4.00	3.95			118.50		
		1	30.00	4.00	4.60	4.30			129.00		

Item No	Description of Item	No	Length	B1	B2	Avg Breadth	Depth	Unit	Qty	Rate in Rs	Amount
		1	30.00	4.60	4.60	4.60			138.00	3,660.00	
		1	30.00	4.60	4.70	4.65			139.50		
		1	30.00	4.70	5.50	5.10			153.00		
		1	15.60	5.50	5.50	5.50			85.80		
	Cross Road Near Venugopala Swamy Temple Road										
		1	30.00	4.50	5.00	4.75			142.50		
		1	21.00	5.00	5.20	5.10			107.10		
	Pot holes										
		1	7.00	2.50	2.50	2.50			17.50		
		1	5.00	2.00	2.00	2.00			10.00		
		1	2.00	1.50	1.50	1.50			3.00		
	Deductions										
	Venugopala Swamy Temple Road										
	Man Holes	-4	(3.142*0.9*0.9)/4						-2.56		
	Transform Area	-1	2.50	2.00	2.00	2.00			-5.00		
								Present Qty	**Sqm**	**1154.84**	**4.46**	**5150.59**
6	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5										
	For Asphalt Road										
	Venugopala Swamy Temple Road From Ramachandrapura Main										
		1	30.00	4.00	3.90	3.95			118.50		
		1	30.00	3.90	4.00	3.95			118.50		
		1	30.00	4.00	4.60	4.30			129.00		
		1	30.00	4.60	4.60	4.60			138.00		
		1	30.00	4.60	4.70	4.65			139.50		
		1	30.00	4.70	5.50	5.10			153.00		
		1	15.60	5.50	5.50	5.50			85.80		
	Cross Road Near Venugopala Swamy Temple Road										
		1	30.00	4.50	5.00	4.75			142.50		
		1	21.00	5.00	5.20	5.10			107.10		
	Pot holes										
		1	7.00	2.50	2.50	2.50			17.50		
		1	5.00	2.00	2.00	2.00			10.00		
		1	2.00	1.50	1.50	1.50			3.00		
	Deductions										
	Venugopala Swamy Temple Road										
	Man Holes	-4	(3.142*0.9*0.9)/4						-2.56		
	Transform Area	-1	2.50	2.00	2.00	2.00			-5.00		
								Present Qty	**Sqm**	**1154.84**	**10.71**	**12368.34**
7	KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen										
	For Asphalt Road										
	Venugopala Swamy Temple Road From Ramachandrapura Main										

Item No	Description of Item	No	Length	B1	B2	Avg Breadth	Depth	Unit	Qty	Rate in Rs	Amount
		1	30.00	4.00	3.90	3.95	0.04		4.74		
		1	30.00	3.90	4.00	3.95	0.04		4.74		
		1	30.00	4.00	4.60	4.30	0.04		5.16		
		1	30.00	4.60	4.60	4.60	0.04		5.52		
		1	30.00	4.60	4.70	4.65	0.04		5.58		
		1	30.00	4.70	5.50	5.10	0.04		6.12		
		1	15.60	5.50	5.50	5.50	0.04		3.43		
	Cross Road Near Venugopala Swamy Temple Road										
		1	30.00	4.50	5.00	4.75	0.04		5.70		
		1	21.00	5.00	5.20	5.10	0.04		4.28		
	Pot holes										
		1	7.00	2.50	2.50	2.50	0.04		0.70		
		1	5.00	2.00	2.00	2.00	0.04		0.40		
		1	2.00	1.50	1.50	1.50	0.04		0.12		
	Deductions										
	Venugopala Swamy Temple Road										
	Man Holes	-4	(3.142*0.9*0.9)/4				0.04		-0.10		
	Transform Area	-1	2.50	2.00	2.00	2.00	0.04		-0.20		
							Present Qty	**Cum**	**46.19**	**6528.78**	**301587.85**

Smitha. N.K
AEW10

8 KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803

	For Asphalt Road										
	Venugopala Swamy Temple Road From Ramachandrapura										
		2	30.00			0.10			6.00		
		2	30.00			0.10			6.00		
		2	30.00			0.10			6.00		
		2	30.00			0.10			6.00		
		2	30.00			0.10			6.00		
		2	30.00			0.10			6.00		
		2	15.60			0.10			3.12		
							Present Qty	**Sqm**	**39.12**	**382.89**	**14978.66**

Smitha. N.K
AEW10

KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202

Qty Taken from Pre measurement page Item No.19, Page No.12	**Cum**	**85.92**	**861.15**	**73993.02**

Smitha. N.K
AEW10

Item No	Description of Item	No	Length	B1	B2	Avg Breadth	Depth	Unit	Qty	Rate in Rs	Amount
0	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum)										
	For CC Road										
	Byrappa Garden										
	1st Cross Road From Temple to Dead End										
		1	4.85	3.00	3.50	3.25	0.15		2.36		
		1	4.00	3.50	3.50	3.50	0.15		2.10		
		1	11.70	6.50	4.40	5.45	0.15		9.56		
		1	15.00	5.10	3.00	4.05	0.15		9.11		
		1	10.20	3.00	1.45	2.23	0.15		3.40		
	2nd Cross Road From Main Road										
		1	15.00	4.20	4.50	4.35	0.15		9.79		
		1	22.00	4.50	5.20	4.85	0.15		16.01		
	Chamundeshwari Layout										
	1st Main Road From SWD										
		1	15.00	0.80	0.90	0.85	0.15		1.91		
		1	7.50	0.90	1.00	0.95	0.15		1.07		
		1	8.00	2.40	3.10	2.75	0.15		3.30		
		1	15.00	1.50	1.00	1.25	0.15		2.81		
		1	15.00	1.00	1.10	1.05	0.20		3.15		
		1	15.00	1.10	1.40	1.25	0.15		2.81		
	Deductions										
	1st Cross Road										
	Electric Pole	-2	0.25	0.25	0.25	0.25	0.15		-0.02		
	2nd Cross Road										
	Ramp	-1	8.00	0.60	0.60	0.60	0.15		-0.72		
	Chamber	-1	2.50	3.00	3.00	3.00	0.15		-1.13		
	Man Hole	-1		(3.142*0.9*0.9)/4			0.15		-0.10		
	Chamundeshwari Layout										
	1st Main Road										
	Chamber	-1	0.90	0.60	0.60	0.60	0.15		-0.08		
	Man Hole	-2		(3.142*0.9*0.9/4)			0.15		-0.19		
								Present Qty	**Cum**	**65.16**	**4387.66**	**285908.15**
										Total	**1872931.50**
										GST Charges 12%	**224751.78**
										Grand Total	**2097683.28**

Assistant Engineer 18/06
Ward No.10

Assistant Executive Engineer
Vidyaranyapura Sub division

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

BYATARAYANAPURA DIVISION

PRE-MEASUREMENTS

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. iii) Dismantling Stone Masonry.B. Rubble stone masonry in cement mortar. MORTH Specification No. 202						
	Doddabommasandra						
	Venugopala Swamy Temple Main Road						
	SSM Culvert						
		2	6.00	0.50	0.75	4.50	
					Present Qty	**4.50**	**Cum**

Sneetle.NL
Assistant Engineer 8/04/21
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
2	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3						
	Desilt						
	Venugopala Swamy Temple Road From Ramachandrapura Main Road						
	LHS						
		1	30.00	0.60	0.45	8.10	
		1	30.00	0.60	0.45	8.10	
		1	30.00	0.60	0.50	9.00	
		1	30.00	0.60	0.45	8.10	
		1	30.00	0.60	0.50	9.00	
		1	30.00	0.60	0.55	9.90	
		1	15.70	0.60	0.45	4.24	
	RHS						
		1	30.00	0.60	0.50	9.00	
		1	30.00	0.60	0.50	9.00	
		1	30.00	0.60	0.50	9.00	
		1	30.00	0.60	0.45	8.10	
		1	30.00	0.60	0.50	9.00	
		1	30.00	0.60	0.55	9.90	
		1	15.70	0.60	0.50	4.71	
	For RCC Culvert						
	Venugopala Swamy Temple Main Road						
	Culvert	1	6.00	2.00	1.15	13.80	
	Archaka S Narasappa Layout						
	Culvert @ 1st cross	1	4.30	2.00	1.15	9.89	
	Culvert @ 2nd cross	1	5.50	2.00	1.15	12.65	
					Present Qty	**151.49**	**Cum**

Sunitha. NL
Assistant Engineer 12/04
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division

page-02

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
3	Removing and refixing stone slabs of drains and pointing in CM (1:3)						
	R&R Slabs						
	Venugopala Swamy Temple Road From Ramachandrapura Main Road						
	LHS						
		1	30.00	0.90		27.00	
		1	30.00	0.75		22.50	
		1	30.00	0.90		27.00	
		1	30.00	0.75		22.50	
		1	30.00	0.75		22.50	
		1	30.00	0.90		27.00	
		1	15.70	0.90		14.13	
	Culvert	-1	6.00	1.50		-9.00	
	RHS						
		1	30.00	0.90		27.00	
		1	30.00	0.75		22.50	
		1	30.00	0.90		27.00	
		1	30.00	0.90		27.00	
		1	30.00	0.75		22.50	
	Deck Slab	0	30.00	0.90		0.00	
		0	15.70	0.90		0.00	
	Cross Road	1	17.00	0.75		12.75	
	Deductions						
	Venugopala Swamy Temple Road						
	Missing Slabs						
	LHS	-24	0.60	0.90		-12.96	
	RHS	-28	0.60	0.90		-15.12	
					Present Qty	**264.30**	**Sqm**

Suette.NK 19/04
Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
4	Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2.								
	For CC Road								
	Byrappa Garden								
	1st Cross Road From Temple to Dead End								
		1	4.85	3.00	3.50	3.25	0.15	2.36	
		1	4.00	3.50	3.50	3.50	0.15	2.10	
		1	11.70	6.50	4.40	5.45	0.15	9.56	
		1	15.00	5.10	3.00	4.05	0.15	9.11	
		1	10.20	3.00	1.45	2.23	0.15	3.40	
	2nd Cross Road From Main Road								
		1	15.00	4.20	4.50	4.35	0.20	13.05	
		1	22.00	4.50	5.20	4.85	0.15	16.01	
	Chamundeshwari Layout								
	1st Main Road From SWD	1	15.00	0.80	0.90	0.85	0.15	1.91	
		1	7.50	0.90	1.00	0.95	0.15	1.07	
		1	8.00	2.40	3.10	2.75	0.15	3.30	
		1	15.00	1.50	1.00	1.25	0.15	2.81	
		1	15.00	1.00	1.10	1.05	0.175	2.70	
	Deductions								
	1st Cross Road								
	Electric Pole	-2	0.25	0.25	0.25	0.25	0.15	-0.02	
	2nd Cross Road								
	Ramp	-1	8.00	0.60	0.60	0.60	0.15	-0.72	
	Chamber	-1	2.50	3.00	3.00	3.00	0.15	-1.13	
	Man Hole	-1		(3.142*0.9*0.9)/4			0.15	-0.10	
	Chamundeshwari Layout								
	1st Main Road								
	Chamber	-1	0.90	0.60	0.60	0.60	0.15	-0.08	
	Man Hole	-2		(3.142*0.9*0.9/4)			0.15	-0.19	
							Present Qty	**65.16**	**Cum**

Smitha. N K
Assistant Engineer 3/05
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division

ame of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

em No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
5	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2.								
	For RCC Culvert								
	Venugopala Swamy Temple Main Road								
	Culvert	1	6.00	2.00	2.00	2.00	0.15	1.80	
	Archaka S Narasappa Layout								
	Culvert @ 1st cross	1	4.30	2.00	2.00	2.00	0.15	1.29	
	Culvert @ 2nd cross	1	5.50	2.00	2.00	2.00	0.15	1.65	
	Chamundeshwari Layout								
	1st Main Road Towards SWD								
		1	16.00	1.10	1.50	1.30	0.15	3.12	
							Present Qty	**7.86**	**Cum**

Sunitha. N.K 3/05
Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

Item No	Discription of Item	No of Bars	Cutting Length of Bar	Weight /m in Kgs	Qty	Unit
7	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position,lapping and / or welding wherever required, tying with binding wire andanchoring to the adjoining members wherever necessary complete asper design (laps, hooks and wastage shall not be measured and paid)cost of materials, labour, HOM of machinery complete as perspecifications.TMT Bars Fe-500					
	Venugopala Swamy Temple Main Road					
	Total length=6.00 Mtr					
	Main bar 12mm dia bar @ 125mm c/c					
	0.89kg/mtr					
	Top	62	2.70	0.89	148.99	
	Bottom	62	3.00	0.89	165.54	
	Distribution bar 10mm dia @ 125mm c/c					
	Top	25	6.00	0.62	93.00	
	Bottom	27	6.00	0.62	100.44	
	Archaka S Narasappa Layout					
	Culvert @ 1st cross					
	Total length=4.30 Mtr					
	Main bar 12mm dia bar @ 125mm c/c					
	0.89kg/mtr					
	Top	45	2.70	0.89	108.14	
	Bottom	45	3.00	0.89	120.15	
	Distribution bar 10mm dia @ 125mm c/c					
	Top	25	4.30	0.62	66.65	
	Bottom	27	4.30	0.62	71.98	
	Culvert @ 2nd cross					
	Total length=5.50 Mtr					
	Main bar 12mm dia bar @ 125mm c/c					
	0.89kg/mtr					
	Top	57	2.70	0.89	136.97	
	Bottom	57	3.00	0.89	152.19	
	Distribution bar 10mm dia @ 125mm c/c					
	Top	25	5.50	0.62	85.25	
	Bottom	27	5.50	0.62	92.07	
				Present Qty	**1341.36**	**Kg**
				Present Qty	**1.34**	**Tonne**

Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
10	Excavation for road work in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections,and transporation with a lead of 1km and complete as per specifications.								
	For Asphalt Road								
	Venugopala Swamy Temple Road From Ramachandrapura Main Road								
	Road Cutting Portion								
		1	8.00	2.40	3.00	2.70	0.23	4.97	
		1	7.50	2.00	2.20	2.10	0.23	3.62	
		1	6.70	2.00	1.80	1.90	0.23	2.93	
		1	7.80	3.00	2.00	2.50	0.23	4.49	
		1	9.00	1.50	1.80	1.65	0.23	3.42	
		1	7.90	2.00	2.50	2.25	0.23	4.09	
		1	5.50	2.20	1.80	2.00	0.23	2.53	
		1	10.00	2.00	2.10	2.05	0.23	4.72	
		1	7.20	2.00	2.00	2.00	0.23	3.31	
	Pot holes								
		1	7.00	2.50	2.50	2.50	0.20	3.50	
		1	5.00	2.00	2.00	2.00	0.20	2.00	
		1	2.00	1.50	1.50	1.50	0.20	0.60	
	For CC Road								
	Byrappa Garden								
	1st Cross Road From Temple to Dead End								
		1	4.85	3.00	3.50	3.25	0.15	2.36	
		1	4.00	3.50	3.50	3.50	0.15	2.10	
		1	11.70	6.50	4.40	5.45	0.15	9.56	
		1	15.00	5.10	3.00	4.05	0.15	9.11	
		1	10.20	3.00	1.45	2.23	0.15	3.40	
	2nd Cross Road From Main Road								
		1	15.00	4.20	4.50	4.35	0.15	9.79	
		1	22.00	4.50	5.20	4.85	0.15	16.01	
	Chamundeshwari Layout								
	1st Main Road From SWD	1	15.00	0.80	0.90	0.85	0.15	1.91	
		1	7.50	0.90	1.00	0.95	0.15	1.07	
		1	8.00	2.40	3.10	2.75	0.15	3.30	
		1	15.00	1.50	1.00	1.25	0.15	2.81	
		1	15.00	1.00	1.10	1.05	0.15	2.36	
		1	15.00	1.10	1.40	1.25	0.15	2.81	
	Deductions								
	1st Cross Road								
	Electric Pole	-2	0.25	0.25	0.25	0.25	0.15	-0.02	
	2nd Cross Road								
	Ramp	-1	8.00	0.60	0.60	0.60	0.15	-0.72	
	Chamber	-1	2.50	3.00	3.00	3.00	0.15	-1.13	
	Man Hole	-1	(3.142*0.9*0.9)/4				0.15	-0.10	
							Present Qty	**104.81**	**Cum**

Swetha .N.K 16/04
Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
11	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406								
	For Asphalt Road								
	Venugopala Swamy Temple Road From Ramachandrapura Main Road								
	Road Cutting Portion								
		1	8.00	2.40	3.00	2.70	0.23	4.97	
		1	7.50	2.00	2.20	2.10	0.23	3.62	
		1	6.70	2.00	1.80	1.90	0.23	2.93	
		1	7.80	3.00	2.00	2.50	0.23	4.49	
		1	9.00	1.50	1.80	1.65	0.23	3.42	
		1	7.90	2.00	2.50	2.25	0.23	4.09	
		1	5.50	2.20	1.80	2.00	0.23	2.53	
		1	10.00	2.00	2.10	2.05	0.23	4.72	
		1	7.20	2.00	2.00	2.00	0.23	3.31	
	Pot holes								
		1	7.00	2.50	2.50	2.50	0.20	3.50	
		1	5.00	2.00	2.00	2.00	0.20	2.00	
		1	2.00	1.50	1.50	1.50	0.20	0.60	
							Present Qty	**40.16**	**Cum**

Sunitha. NK 6/05
Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
	Pre measurement recorded on:								
12	KSRRB 500-1. Cleaning the existing WBM road surface including removing of binding materials and other foreign matter with wire brushes and small picks, sweeping with brooms or soft brushes and finally dusting with old gunny bags and / or compressed air, to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501								
	For Asphalt Road								
	Venugopala Swamy Temple Road From Ramachandrapura Main Road								
	Road Cutting Portion								
		1	8.00	2.40	3.00	2.70		21.60	
		1	7.50	2.00	2.20	2.10		15.75	
		1	6.70	2.00	1.80	1.90		12.73	
		1	7.80	3.00	2.00	2.50		19.50	
		1	9.00	1.50	1.80	1.65		14.85	
		1	7.90	2.00	2.50	2.25		17.78	
		1	5.50	2.20	1.80	2.00		11.00	
		1	10.00	2.00	2.10	2.05		20.50	
		1	7.20	2.00	2.00	2.00		14.40	
		1	30.00	4.60	4.60	4.60		138.00	
		1	18.50	4.70	5.00	4.85		89.00	
	Pot holes								
		1	7.00	2.50	2.50	2.50		17.50	
		1	5.00	2.00	2.00	2.00		10.00	
		1	2.00	1.50	1.50	1.50		3.00	
							Present Qty	**405.61**	**Sqm**

Assistant Engineer 22/05
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division									
Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
13	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502								
	For Asphalt Road								
	Venugopala Swamy Temple Road From Ramachandrapura Main Road								
	Road Cutting Portion								
		1	8.00	2.40	3.00	2.70		21.60	
		1	7.50	2.00	2.20	2.10		15.75	
		1	6.70	2.00	1.80	1.90		12.73	
		1	7.80	3.00	2.00	2.50		19.50	
		1	9.00	1.50	1.80	1.65		14.85	
		1	7.90	2.00	2.50	2.25		17.78	
		1	5.50	2.20	1.80	2.00		11.00	
		1	10.00	2.00	2.10	2.05		20.50	
		1	7.20	2.00	2.00	2.00		14.40	
		1	30.00	4.60	4.60	4.60		138.00	
		1	18.50	4.70	5.00	4.85		89.00	
	Pot holes								
		1	7.00	2.50	2.50	2.50		17.50	
		1	5.00	2.00	2.00	2.00		10.00	
		1	2.00	1.50	1.50	1.50		3.00	
							Present Qty	**405.61**	**Sqm**

Assistant Engineer 22/05
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
14	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen								
	For Asphalt Road								
	Venugopala Swamy Temple Road From Ramachandrapura Main Road								
	Road Cutting Portion								
		1	8.00	2.40	3.00	2.70	0.05	1.08	
		1	7.50	2.00	2.20	2.10	0.05	0.79	
		1	6.70	2.00	1.80	1.90	0.05	0.64	
		1	7.80	3.00	2.00	2.50	0.05	0.98	
		1	9.00	1.50	1.80	1.65	0.05	0.74	
		1	7.90	2.00	2.50	2.25	0.05	0.89	
		1	5.50	2.20	1.80	2.00	0.05	0.55	
		1	10.00	2.00	2.10	2.05	0.05	1.03	
		1	7.20	2.00	2.00	2.00	0.05	0.72	
		1	30.00	4.60	4.60	4.60	0.05	6.90	
		1	18.50	4.70	5.00	4.85	0.05	4.45	
	Pot holes								
		1	7.00	2.50	2.50	2.50	0.05	0.88	
		1	5.00	2.00	2.00	2.00	0.05	0.50	
		1	2.00	1.50	1.50	1.50	0.05	0.15	
							Present Qty	**20.28**	**Cum**

Assistant Engineer 22/05
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division

Name of work:Improvements to Roads and Drains at Nanjappa Layout in ward No.10, Doddabommasandra Vidyaranyapura Sub Division

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
19	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202								
	For CC Road								
	Byrappa Garden								
	1st Cross Road From Temple to Dead End								
		1	4.85	3.00	3.50	3.25	0.20	3.15	
		1	4.00	3.50	3.50	3.50	0.20	2.80	
		1	11.70	6.50	4.40	5.45	0.20	12.75	
		1	15.00	5.10	3.00	4.05	0.20	12.15	
		1	10.20	3.00	1.45	2.23	0.20	4.54	
	2nd Cross Road From Main Road								
		1	15.00	4.20	4.50	4.35	0.20	13.05	
		1	22.00	4.50	5.20	4.85	0.20	21.34	
	Chamundeshwari Layout								
	1st Main Road From SWD	1	15.00	0.80	0.90	0.85	0.20	2.55	
		1	7.50	0.90	1.00	0.95	0.20	1.43	
		1	8.00	2.40	3.10	2.75	0.20	4.40	
		1	15.00	1.50	1.00	1.25	0.20	3.75	
		1	15.00	1.00	1.10	1.05	0.20	3.15	
		1	15.00	1.10	1.40	1.25	0.20	3.75	
	Deductions								
	1st Cross Road								
	Electric Pole	-2	0.25	0.25	0.25	0.25	0.20	-0.03	
	2nd Cross Road								
	Ramp	-1	8.00	0.60	0.60	0.60	0.20	-0.96	
	Chamber	-1	2.50	3.00	3.00	3.00	0.20	-1.50	
	Man Hole	-1	(3.142*0.9*0.9)/4				0.20	-0.13	
	Chamundeshwari Layout								
	1st Main Road								
	Chamber	-1	0.90	0.60	0.60	0.60	0.15	-0.08	
	Man Hole	-2	(3.142*0.9*0.9/4)				0.15	-0.19	
							Present Qty	**85.92**	**Cum**

Sunitha. N K 20/04
Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranyapura Sub division